UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

IN THE MATTER OF: MAYTAG CORPORATION Newton, Iowa	ADMINISTRATIVE ORDER ON CONSENT
EPA I.D. IAD005285689	VII-94-H-0005
RESPONDENT	
PROCEEDING UNDER SECTION 3008(h) OF THE RESOURCE CONSERVATION AND RECOVERY ACT, AS AMENDED, 42 U.S.C. 6928(h).	

12/30/93

accordion #6

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I. JURISDICTION

This Administrative Order on Consent ("Consent Order") is issued to Respondent, Maytag Corporation ("Respondent"), a Delaware corporation, pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency (EPA) by Section 3008(h) of the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976 (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. § 6928(h). This authority has been delegated to the Regional Administrator of the EPA, Region VII, by EPA Delegations Nos. 8-31 and 8-32, dated April 16, 1985 and further delegated to the Director of the Waste Management Division of EPA, Region VII, by Delegation No. R7-8-37, dated May 16, 1988.

By entering into this Consent Order, Respondent consents to its issuance as part of its ongoing efforts to address known releases on its property. Respondent consents to and agrees not to contest EPA's jurisdiction to issue this Consent Order or the factual basis therefor, or EPA's authority to compel compliance with the terms of the Consent Order in any subsequent proceedings, whether administrative or judicial.

II. APPLICABILITY

1. This Consent Order shall apply to and be binding upon EPA and Respondent and their officers, directors, employees, agents, successors and assigns, receivers, and upon all persons, acting under or on behalf of Respondent or EPA.

2. Respondent shall give notice of this Consent Order to any successor in interest prior to the transfer of corporate ownership or operation of its facility in Jasper County, Iowa on the northeast edge of Newton, Iowa in an area bounded by East 8th Street North, North 19th Avenue East and Iowa Interstate Railroad, (hereinafter "Facility"), and shall provide EPA with written notification of any such transfer, and shall assure continuing EPA access under any such transfer agreement.

3. No change in ownership of the Facility or corporate status of Respondent will in any way alter Respondent's obligations under this Consent Order. Any conveyance of title, easement, or other interest in the Facility, or a portion of the Facility, shall not affect Respondent's obligations under this Consent Order. Respondent shall be responsible for and liable for any failure to carry out all activities required of Respondent by the terms and conditions of the Consent Order, regardless of Respondent's use of employees, agents, contractors, or consultants to perform any such tasks.

4. Respondent shall provide notification of this Consent Order and its terms to all contractors, laboratories and consultants retained to conduct or monitor any portion of the work required to be performed pursuant to this Consent Order within seven (7) days of the effective date of this Consent Order or within seven (7) days of the date of such retention, and shall condition all contracts regarding performance of such work on compliance with the terms of this Consent Order.

5. Respondent agrees to undertake all actions required by the terms and conditions of this Consent Order, including any portions of this Consent Order incorporated by reference. Respondent consents to the issuance of this Consent Order and waives any right to request a hearing on the Consent Order pursuant to §3008(b) of RCRA and 40 C.F.R. Part 24.

III. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Consent Order which are defined in RCRA or in regulations promulgated under RCRA shall have the meaning assigned to them under RCRA or in such regulations.

For purposes of this Consent Order the term "hazardous constituent" shall be interpreted to be the same as "hazardous waste constituent" as defined in 40 C.F.R. § 260.10, and a "hazardous waste" as defined by Section 1004(5) of RCRA, 42 USC § 6903 for purposes of Section 3008(h) of RCRA, 42 USC § 6928(h).

The terms "and" and "or" shall be construed either disjunctively or conjunctively as necessary to bring within the scope of this Consent Order requirements or meanings which might otherwise be construed to be outside its scope.

IV. STATEMENT OF PURPOSE

In entering into this Consent Order, the mutual objectives of EPA and Maytag are:

1. To assure the completion of a RCRA Facility Investigation (RFI) and any other investigations necessary to determine fully what releases of hazardous constituents have

occurred at or from the Facility and to formally characterize the nature and extent of any such release,

2. to perform any Interim Measures (IM) at Respondent's Facility that EPA determines are necessary to control or abate immediate threats to human health or the environment, and

3. to perform a Corrective Measures Study (CMS) to identify and evaluate alternatives for corrective measures that will prevent, mitigate, or remediate any migration or release of hazardous constituents at or from the Facility as EPA determines is necessary to protect human health and the environment.

V. FINDINGS OF FACT

1. Respondent is a corporation organized under the laws of the state of Delaware, and is authorized to conduct business in the state of Iowa.

2. Respondent owns and operates the Facility described in Section II, Paragraph 2 above. The Facility is bounded by East 8th Street North, North 19th Avenue East and Iowa Interstate Railroad. The location of the Facility is depicted in Figure 1. The Facility covers approximately one hundred sixty-six (166) acres, approximately half of which is covered by buildings that house facility operations. The layout of the Facility is depicted in Figure 2. Directly to the South of the Facility are commercial concerns and a residential area. Directly to the Southeast is an industrial park. To the East is farmland and located approximately 1/4 mile to the West is a park and residential area. The area North of the Facility is primarily

farmland with a few commercial concerns along North 19th Avenue East.

3. Respondent manufactures household and commercial laundry appliances at the Facility. Some of the major operations performed at this Facility are plating operations, grinding, painting and paint drying, and porcelain applications. Wastes generated from these operations include wastewater from common metal (chromium and zinc) electroplating, paint waste (electro deposition and conventional spray application), waste from sheet metal cleaning, porcelain enameling and pickling operations, non-halogenated solvents, waste polymerized paints, paint sludges and wastewater treatment sludges from electroplating operations.

4. Pursuant to Section 3010 of RCRA, 42 U.S.C. Section 6930, Respondent provided notice to EPA of its hazardous waste activities by submittal of its "Notification of Hazardous Waste Activity," dated August 15, 1980. Respondent identified its activities as generation; treatment, storage, or disposal (TSD); and transporting of hazardous wastes. The notification identified the following hazardous wastes as set forth at 40 C.F.R. Part 261 as those handled at the Facility: F001, F002, F003, F005, F006, F007, F008, F009, F017, F018, K062, K063, U013, D001, D002 and D007. In correspondence dated January 24, 1983, June 20, 1985, January 29, 1986, September 11, 1986, and November 16, 1988, Respondent amended its original Notification of Hazardous Waste Activities.

5. EPA assigned the Facility EPA Identification Number IAD005285689.

6. On or about November 17, 1980, Respondent submitted its Part A RCRA Permit Application, and thus achieved interim status pursuant to Section 3005(e) of RCRA. In correspondence dated January 21, 1983, February 23, 1983, April 8, 1983, September 10, 1986, November 4, 1988, and September 24, 1992, Respondent amended its original Part A RCRA Permit Application.

7. Respondent implemented approved closure plans for all the interim status units at the Facility in 1988. Respondent has submitted closure certification to EPA for these closures.

8. In 1987 EPA conducted a RCRA Facility Assessment (RFA) at the Facility. Respondent has also conducted investigations at the Facility, including soil borings and the installation of groundwater monitoring wells, to identify the location and extent of releases of hazardous constituents. A number of solid waste management units (SWMUs) and releases have been identified at the Facility as described below:

a. Incinerator

(1) Respondent operated a Prenco Model SF incinerator from 1961 to November 1981 to incinerate waste flush solvent which is a mixture of methyl ethyl ketone and toluene and paint waste which exhibited the characteristics of a D001 waste. Respondent also used the incinerator to incinerate other miscellaneous D001 wastes and

waste oils. During the period of operation, Respondent operated the incinerator approximately ten days per month. Respondent stored wastes to be incinerated in two 8 ft. x 8 ft. x 3 ft. high holding tanks and two 5 ft. x 6 ft. x 3 ft. high operating tanks. There were also two fuel oil tanks with the dimensions 3 ft. x 3 ft. x 3 ft. high and 2 ft. x 2 ft. x 3 ft. high on the same slab as the holding and operating tanks. Respondent pumped the wastes to be incinerated approximately 60 feet to the incinerator. The incinerator had a capacity of 20 gallons an hour. Figure 3 identifies the location of the incinerator area at the Facility. An EPA-approved closure plan was implemented by Respondent in 1988.

(2) Sampling of both soil and groundwater in the vicinity of the incinerator indicates the presence of the organic hazardous constituents 1,1,1-trichloroethane, benzene, toluene, ethylbenzene, xylenes, methyl ethyl ketone, tetrachloroethene, 1,1-dichloroethene and 1,1-dichloroethane and the inorganics cadmium, chromium, nickel and lead. The dates of sampling, sampling locations, media sampled, and the results of sampling are detailed in the following table:

Sample I.D.	Date	Media	Constituents	Level	Units
Soil Boring 13	6/28/88	Ground Water	Methyl ethyl ketone Trichloroethane Toluene Ethylbenzene Xylenes	50.8 13.4 240 8.2 48.7	mg/l " " " "
EPA - 003	9/16/87	Soil	Xylenes Toluene	1100 140	mg/kg "
Soil Boring 48 20-21.5' interval	8/8/88	Soil	Tetrachloroethene 1,1,1-trichloroethane Xylenes	72 1810 87	mg/kg " "
Boring 48	8/9/88	Ground Water	1,1,1-trichloroethane Xylenes 1,1-Dichloroethene 1,1-Dichloroethane t-1,2-Dichloroethene	2700 520 600 536 452	µg/l " " " "
MW-2	8/29/88	Ground Water	Tetrachloroethene 1,1,1-trichloroethane 1,1-Dichloroethene 1,1-Dichloroethane t-1,2-Dichloroethene	150 228 13 7 7	µg/l " " " "

The incinerator pad and associated equipment including tanks, pumps, pipes and valves were decontaminated and scrapped. Equipment that could not be decontaminated was disposed of as hazardous waste. Respondent has submitted a closure certification for this closure. In December of 1989, 497 cubic yards of the more contaminated soil was removed and disposed of at an offsite facility. Respondent has submitted closure certification for this activity.

b. Underground Storage Tank (UST)

(1) In 1967 Respondent installed a 400-gallon underground storage tank (UST) directly adjacent to building number 126 under a gravel area. The remainder of the surface area around the building is covered by concrete. (See Figure 4, attached, for location of UST.) The UST was constructed of mild steel with an asphaltic coating. Its usage was discontinued in approximately August, 1984. In January, 1990 the UST was removed. Prior to 1982, the UST was used to store waste flush solvent before the solvent was transported to the above ground tanks associated with the incinerator. The waste flush solvent consisted of a mixture of methyl ethyl ketone, toluene and paint which exhibited the characteristic of a D001 waste. From 1982 until approximately August 1984, Respondent used the UST to store solvent flushed from hoses prior to the unloading of tankers of solvent.

(2) Sampling of both the soil and groundwater in the vicinity of the UST indicates the presence of the organic hazardous constituents methyl ethyl ketone, toluene, xylene, ethylbenzene, tetrachloroethene, 1,1,1-trichloroethane, 1,1-dichloroethene and acetone, and the inorganics

arsenic, chromium and lead. The dates of sampling, sampling locations, media sampled, and the results of sampling are detailed in the following table:

Sample I.D.	Date	Media	Constituents	Level	Units
Soil Boring 46	6/29/88	Ground Water	Methyl ethyl ketone Toluene Xylenes	360 220 12	mg/l " "
Soil Boring 46 9-10.5' interval	6/28/88	Soil	Methyl ethyl ketone Ethylbenzene Toluene Xylenes	91 4.7 140 22	mg/kg " " "
Soil Boring 55 10-11.5' interval	8/11/88	Soil	Ethylbenzene Toluene Xylenes	.9 26.5 3.2	mg/kg " "
MW-8	8/29/88	Ground Water	Tetrachloroethene 1,1,1-Trichloroethane 1,1-Dichloroethene	560 370 28	µg/l " "
Soil Boring 81	10/16/89	Ground Water	Acetone Methyl ethyl ketone Toluene Xylenes	9580 43300 26400 1390	µg/l " " "
MW-8	11/17/89	Ground Water	1,1-Dichloroethene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Tetrachloroethene	23 180 20 656	µg/l " " "
EPA - 007	5/30/90	Ground Water	1,1-Dichloroethane 1,2-Dichloroethene Trichloroethene	9 37 5	µg/l " "
MW-1A	10/29/90	Ground Water	1,1-Dichloroethane Trichloroethene Tetrachloroethene	2 1 21	µg/l " "
MW-2A	4/10/91	Ground Water	1,1,1-Trichloroethane Tetrachloroethene	6 17	µg/l "
MW-1A	10/25/91	Ground Water	Tetrachloroethene	22	µg/l

MW-2A	5/5/92	Ground Water	1,1,1-Trichloroethane Tetrachloroethene	4 13	µg/l "
MW-1A	10/21/92	Ground Water	Tetrachloroethene	15	µg/l

The tank was removed in January 1990. The materials inside the tank were removed and were disposed of with the concrete and soil from the tank area at an offsite facility. The tank was decontaminated and scrapped. Respondent submitted a certification of closure for this activity dated May, 1990.

c. Waste Pile

(1) From November 1980 to July 1981

Respondent operated a waste pile at which it stored approximately 815 tons of wastewater treatment sludges from electroplating operations which are listed at 40 C.F.R. 261.31 as a F006 hazardous waste. Respondent received a temporary delisting for wastewater treatment sludge in August, 1981. Final delisting for the wastewater treatment sludge was received in 1986. The waste pile was located within the bermed area of an above-ground No. 6 fuel oil storage tank. The berm was designed to catch runoff that may have occurred in the area. Figure 5 identifies the location of the waste pile area.

(2) Groundwater monitoring conducted by Respondent in the vicinity of the waste pile has detected releases of hazardous constituents including arsenic, barium, cadmium, chromium, nickel and lead. Analyses for dissolved and total metals were conducted on all groundwater samples collected from monitoring wells 9 through 12. The groundwater samples collected contained sediment. Sample #24 was collected from an open bore hole at a depth of two feet below the ground's surface. Analyses for dissolved metals were not conducted on Sample #24. Respondent submitted certification for closure for this activity dated March 1989. The dates of sampling, sampling locations, media sampled, and the results of sampling are detailed in the following table:

Sample I.D.	Date	Media	Constituents	Level	Units
#24 Berm Area	6/28/88	Ground Water (collected from open borehole 2 feet below ground surface; sediment)	Arsenic Barium Cadmium Chromium Nickel Lead Mercury	0.7 4.79 0.03 1.56 0.87 0.35 0.006	mg/l " " " " " "

MW-9	8/29/88	Ground Water	Nickel Lead	.12 .04	mg/l "
MW-11	8/29/88	Ground Water	Lead	.02	mg/l
MW-12	8/29/88	Ground Water	Arsenic Lead	.09 .02	mg/l "
MW-9	9/27/88	Ground Water	Nickel	.13	mg/l
M-10	9/27/88	Ground Water	Nickel Lead	.21 .02	mg/l "
MW-11	9/27/88	Ground Water	Nickel	.11	mg/l
MW-12	9/27/88	Ground Water	Nickel	.12	mg/l

d. Chrome Tank

(1) Respondent operates a chrome treatment tank located next to the wastewater treatment building. The capacity of the tank is 7,500 gallons. The tank began operation in 1954. A release of waste Alodine solution occurred in this area on March 8, 1984. The release was treated with sodium metabisulfite.

(2) An overflow of this tank occurred on August 11, 1988. This overflow contained only the trivalent form of chromium. Liquid was collected and reintroduced into the wastewater treatment system. Soil was removed from the area and disposed in an offsite facility. Both of the spills and responses were reported to the Iowa Department of Natural Resources (IDNR).

e. Chrome Plating Operation

Respondent operates a chrome plating operation which consists of a number of process tanks located on the main floor of Building No. 105. In the early 1970's, hexavalent chromium was identified in the groundwater beneath where this process was located. Groundwater in the area is being pumped from the subsurface area of the chrome plating operation and treated in the Chrome Treatment process through the Wastewater Treatment Plant.

f. Bonderite Wastewater Discharge

Respondent operates a 4-inch fiberglass underground process wastewater line from the Paint Department to the on-site Wastewater Treatment Plant. This unit was installed in 1966 and is still in use. A release of approximately 200 gallons of wastewater from the Paint Department occurred on December 15, 1992. Soil was excavated from the area and treated with sodium metabisulfite. The soil was disposed under a Special Waste Authorization (SWA) at an offsite facility. In addition, sodium metabisulfite was spread in the bottom of the excavation to reduce any hexavalent chromium to trivalent chromium. The release and response were reported to IDNR.

g. Paint Hanger Stripping Area

For approximately 3 years between the late 1940s and early 1950s, Respondent operated a Paint Hanger Stripping Area approximately 100 feet south of Building No. 115. This process consisted of stripping paint hangers by dousing them with 40 to 50 gallons of Stanisol and burning. Approximately every 2 weeks the hangers were piled up in the yard and the residue burned off at a location south of Building No. 115.

h. Bonderite Tank

Respondent operated a 4,000 gallon above ground tank located south of Building No. 125 to store Bonderite 37 replenisher. The tank was installed in 1966 and removed in 1984. A release of approximately 667 gallons occurred on December 4, 1984.

i. Electrocoat Holding Tank

Respondent operates a 48,000 gallon above ground electrocoat holding tank. The tank began operation in 1980 and is still in use. A release of approximately 1,000 gallons of reduced cathodic electrocoat occurred on January 16, 1986. An absorbent was spread on the spill. Approximately 34,000 pounds of the absorbent and stained soil was removed from the area and disposed of offsite pursuant to a Special Waste Authorization. The release and response were reported to IDNR.

j. Underground Storage Tanks by Paint Mix

Respondent operated 5 underground storage tanks. The tanks were installed in 1966. The tanks' capacities and usage are as follows:

TANK CAPACITY	USED TO STORE
10,000 gallon	Solvent Flush
4,500 gallon	Toluene
4,500 gallon	Xylene
4,500 gallon	Butyl Cellosolve
10,000 gallon	Toluene

On November 7, 1989, tank tightness testing indicated that the 10,000 gallon solvent flush tank and the 4,500 gallon butyl cellosolve tank did not meet the applicable tightness requirements. The release was reported to the IDNR and product was removed from these two tanks. All five tanks were removed, decontaminated, and scrapped in November, 1992.

k. Above Ground Tank

Respondent operates a 840,000-gallon above ground tank that stores No. 6 Fuel Oil. The tank began operation in 1975 and is still in use. On June 13, 1989, a release of 300 gallons occurred on the cement pad near Building No. 101, while a tanker truck was being

loaded. On November 6, 1989, a release of between 100 and 150 gallons occurred in the bermed area of the tank. On February 5, 1992, a release of approximately 800 gallons occurred from the rail car unloading station. On March 26, 1993, a release of approximately 750 gallons occurred from the pump house. All these releases were reported to IDNR.

1. Container Storage Area

Between 1985 and 1988, Respondent utilized three areas for storage of paint sludge drums. The waste was removed from these areas and disposed of at an offsite facility, and the areas were closed and a closure certification submitted to EPA in January, 1989.

9. In 1992, Respondent initiated design of a system to prevent constituents identified in the groundwater from migrating from Facility. The system is designed to intercept groundwater from a drain tile system originating from Buildings 125 and 126. The tile line interception well was completed in October, 1992, and the interception trench was installed in May, 1993. A shallow aquifer trench (18-20 feet deep and approximately 850 feet long) was designed to intercept the groundwater at the leading edge of the plume associated with the constituents identified in the general area of the incinerator. The design provides that the groundwater intercepted from the two sources is pumped to a stripper, and then discharged via an NPDES permit.

Construction of the system was completed in spring of 1993, and it has been operational since that time.

10. The hydrogeologic conditions in the vicinity of the Facility appear to be an overburden ranging from 100 to 150 feet, and an underlying bedrock composed of cyclical deposits of shale, sandstone, thin limestone and coal. The City of Newton's water supply comes from an alluvial aquifer in the South Skunk River floodplain. The alluvial aquifer is composed of various amount of clay, silt, sand and gravel deposited by the South Skunk River. The South Skunk River is six and a half miles southwest of the Facility.

11. The shallow groundwater at the Facility is not a source of potable water.

12. The Facility is located on the Muscatine series soil which is composed of a silty clay loam and extends to a depth of six feet. Surface water runoff appears to flow into one of two intermittent streams draining the facility property.

13. Results of laboratory tests have shown that at certain concentrations the hazardous constituents released at the Facility may have acute or chronic detrimental health effects in humans or may adversely impact the environment.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

Based upon the foregoing Findings of Fact the Director, Waste Management Division, EPA Region VII, makes the following conclusions of law and determinations:

1. Respondent is a "person" within the meaning of Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

2. Respondent is the owner or operator of a facility that has operated or is operating subject to the interim status requirements of RCRA, within the meaning of Section 3005(e) of RCRA, 42 U.S.C. § 6925(e).

3. Certain hazardous constituents found at the Facility are hazardous wastes and/or hazardous constituents as defined by Section 1004(5) of RCRA, 42 U.S.C. § 6903(5), Section 3001 of RCRA, 42 U.S.C. § 6921 and 40 C.F.R. Parts 260 and 261.

4. There is or has been a release of hazardous wastes and/or hazardous waste constituents into the environment from the Facility.

5. The actions required by this Consent Order are necessary to protect human health or the environment.

VII. WORK TO BE PERFORMED

Pursuant to Section 3008(h) of RCRA, 42 U.S.C. § 6928(h), Respondent agrees and is hereby ordered to perform the acts specified in this Section VII, Work to be Performed, in the manner and by the dates specified herein. All plans developed and all work undertaken pursuant to this Consent Order shall be in conformance with RCRA and other applicable federal laws and their implementing regulations, and applicable and published EPA guidance documents as identified by EPA. Applicable guidance includes at a minimum the "RCRA Facility Investigation Guidance" (EPA 530/SW/87/001), "RCRA Ground Water Monitoring Technical

Enforcement Guidance Document" (OSWER Directive 9950.1, September 1986), "Test Methods for Evaluating Solid Waste" (SW-846, 1986), and "Construction Quality Assurance for Hazardous Waste Land Disposal Facilities" (EPA 530/SW/85/031). Additional specific guidance to be followed will be timely identified by EPA during the course of the work to be performed and in approved Work Plans. In addition, all work undertaken pursuant to this Consent Order shall be performed in accordance with the EPA-approved RCRA Facility Investigation (RFI) Work Plan, the EPA-approved RCRA Corrective Measures Study (CMS) Work Plan, any EPA-approved Interim Measures Work Plan, and any other EPA-approved work plans submitted pursuant to this Consent Order.

A. Interim Measures

1. If Respondent identifies any immediate or potential threat to human health or the environment, Respondent shall immediately provide oral notice to the EPA Project Coordinator and within ten (10) calendar days, provide written notice summarizing the immediacy and magnitude of the potential threat(s) to human health and/or the environment. Upon written request of EPA, within forty-five (45) calendar days of receipt of the request Respondent shall submit to EPA an Interim Measures (IM) Work Plan meeting the requirements of this Subsection. If EPA determines that immediate action is required, the EPA Project Coordinator may orally authorize Respondent to act prior to EPA's receipt of the Interim Measures Work Plan. EPA will review the work plan submitted pursuant to Section VIII, Submittals.

2. If EPA identifies any immediate or potential threat to human health and/or the environment, EPA will notify Respondent in writing. Within forty-five (45) calendar days of receiving EPA's written notification, Respondent shall submit to EPA for approval an Interim Measures Work Plan meeting the requirements of this Subsection that identifies interim measures which will mitigate the threat. If EPA determines that immediate action is required, the EPA Project Coordinator may orally require that Respondent act prior to Respondent's receipt of EPA's written notification. EPA will review the work plan submitted pursuant to Section VIII, Submittals.

3. To the extent possible, Interim Measures shall be consistent with, and contribute to the performance of any long-term remedy which may be required at the Facility. At a minimum, any interim measures work plan developed pursuant to this subsection shall include the following:

a. Interim Measures Objectives

b. Public Involvement Plan

c. Data Collection Quality Assurance

d. Data Management

e. Design Plans and Specifications

f. Operation and Maintenance

g. Project Schedule

h. Interim Measure Construction Quality Assurance

i. Reporting Requirements

j. Health and Safety Plan

B. RCRA Facility Investigation (RFI)

1. Within ninety (90) calendar days of the effective date of this Consent Order, Respondent shall submit to EPA, for review and approval, a RFI Work Plan. In addition, within ninety (90) calendar days of any written notice by EPA that additional investigation is required as provided in Subsection C of this Section or Subsection C of Section IX, Respondent shall also submit a RFI Work Plan for such work. The RFI Work Plan shall be prepared in accordance with the requirements of this Consent Order, including Attachment I which is hereby incorporated herein.

2. The RFI Work Plan shall be designed to meet the objectives of Section IV and shall include measures to define the presence, magnitude, extent, direction, and rate of movement of hazardous constituents within and extending beyond the Facility boundary including releases of hazardous constituents from the areas listed in Paragraph 8 of the Findings of Fact herein, and any additional releases identified in accordance with this Consent Order. Respondent may utilize existing data and documentation to the extent it meets the objectives of this Subsection B of Section VII of the Consent Order.

3. The RFI Workplan shall provide a specific schedule for RFI implementation and shall identify and shall specify those methods set forth in the RCRA Corrective Action Plan (EPA 530/SW/88/028) (CAP) that are necessary to meet the objectives of

Paragraph 2 above and will accomplish the following at the Facility:

a. Characterize the environmental setting including the potential pathways of contaminant migration;

b. Characterize sources and nature of hazardous constituents from all SWMUs;

c. Characterize concentration, rate, and extent of contamination released from the Facility including any contaminant plumes;

d. assess the potential human and environmental receptors of the hazards posed by releases; and

e. support the development of alternatives from which corrective measures or the need for corrective measures will be evaluated and selected by EPA.

4. EPA will review the RFI Work Plan pursuant to Section VIII, Submittals.

5. Respondent shall submit to EPA, for review and approval, a RCRA Facility Investigation Report (RFI Report), which summarizes the findings and results of the RFI in accordance with the schedule set out in the EPA-approved RFI Work Plan.

C. Additional Solid Waste Management Units (SWMU)

1. Respondent shall notify the project coordinator in writing of any Solid Waste Management Unit(s) (SWMU(s)) identified subsequent to the issuance of this Consent Order no later than fifteen (15) calendar days after discovery.

2. Within thirty (30) days of receipt of a request for investigation from EPA, the Respondent shall submit a SWMU Assessment Report to EPA. At a minimum, the Report shall provide the following information for each newly-identified SWMU:

a. The location of the newly-identified SWMU in relation to other SWMUs;

b. The type and function of the unit;

c. The general dimensions, capacities, and structural description of the unit;

d. The period during which the unit was operated;

e. The physical and chemical properties of all wastes that have been or are being managed at the SWMU, to the extent available;

f. The results of any sampling and analysis conducted;

g. Past and present operating practices;

h. Previous uses of the area(s) occupied by the SWMU;

i. Amounts of waste handled; and

j. Drainage areas and/or drainage patterns near the SWMU.

3. The Report will be reviewed in accordance with the procedures set forth in Section VIII of this Consent Order. Based on the findings of this Report, EPA will determine the need for further investigations, including Interim Measures or a RCRA Facility Investigation, at specific unit(s) identified in the SWMU Assessment Report.

4. If EPA determines that additional investigations are required as provided in Subsection C of Section IX, EPA may require Respondent to prepare and submit for approval a Work Plan

for such investigations. This Work Plan for additional investigations will be reviewed in accordance with the procedures set forth in Section VIII of this Consent Order. Upon approval thereof Respondent shall implement the plan in accordance with the schedule contained therein.

D. Corrective Measures Study (CMS)

1. Within ninety (90) days of Respondent's receipt of EPA's approval of the RFI Report, Respondent shall submit a Corrective Measures Study (CMS) Work Plan to EPA. The CMS Work Plan shall be prepared in accordance with the requirements of this Consent Order, including Attachment II which is hereby incorporated herein.

2. EPA will review the CMS Work Plan in accordance with Section VIII, Submittals.

3. The CMS Work Plan shall provide, at a minimum, the following information:

a. A schedule for implementation of each task provided in the CMS Work Plan, and a schedule for completion of the CMS Work Plan;

b. A description of the general approach to the CMS and potential remedies;

c. The specific plans for evaluating remedies; and

d. The proposed format for the presentation of information.

4. Respondent shall prepare treatability studies for all potential corrective measures that involve treatment except where

Respondent can demonstrate to EPA's satisfaction that they are not needed. The CMS Work Plan shall include, at a minimum, a summary of the proposed treatability study and conceptual design, and a schedule for submitting the treatability study work plan or Respondent's justification for not proposing a treatability study.

5. Respondent shall submit to EPA, for review and approval, a Corrective Measures Study Report (CMS Report), which summarizes the findings and results of the CMS in accordance with the schedule set forth in the EPA-approved CMS Work Plan.

6. The CMS Report shall detail the methodology for developing and evaluating potential corrective measures to remedy any contamination at the facility. The CMS Report shall identify the potential corrective measures, including any innovative technologies, that may be used for the containment, treatment, and/or disposal of contamination.

7. The CMS Report shall contain, at a minimum, the following information for each corrective measure studied:

a. An evaluation of any treatability studies performed;

b. An evaluation of the overall protectiveness of human health and of the environment;

c. Ability to control the source(s) of release(s);

d. An estimate and analysis of quantity, volume, and/or toxicity of the waste generated, including,

but not limited to, contaminated soil, sludge, and groundwater;

e. Methods to minimize the volume, toxicity, and/or mobility of waste to be generated;

f. An assessment of how institutional and legal requirements including federal, State, or local environmental or public health standards, regulations, and/or ordinances will affect the design, operation, and timing of each corrective action alternative;

g. An assessment of short-term and of long-term reliability and effectiveness, including, but not limited to, the methodology used to estimate the short-term and long-term reduction of toxicity, mobility, or volume of waste and the resulting estimate;

h. An evaluation of ease of implementation;

i. An estimate of the cost, including capital and annual operation and maintenance costs; and,

j. A recommendation as to which corrective measure(s), in Respondent's opinion, is (are) the most appropriate, and the rationale for such recommendation;

8. EPA will review the CMS Report in accordance with Section VIII, Submittals.

VIII. SUBMITTALS

1. EPA will review all reports or work plans, and notify Respondent of its approval, approval with conditions, disapproval, or disapproval with comments and/or modifications for any work plan, report (except progress reports), specification, or schedule submitted pursuant to this Consent Order, that requires EPA approval.

2. Unless specified differently in this Consent Order, within thirty (30) days of receipt of EPA's approval with conditions, disapproval, or disapproval with comments and/or modifications of any work plan or report, Respondent shall revise or amend and submit to EPA such work plan, report, specification, or schedule in accordance with EPA's comments.

3. If EPA disapproves any revised submittal, EPA may modify the submittal in accordance with its comments and notify the Respondent of the modification.

4. Upon receipt of EPA's written approval or notification, Respondent shall commence work and implement any approved work plan in accordance with the schedule and provisions contained therein.

5. Any EPA-modified or approved work plan, specification, or schedule shall be deemed incorporated into this Consent Order. Prior to written notice of modification or approval, no work plan, report, specification, or schedule shall be construed as approved and final.

6. Respondent shall submit four (4) copies of Work plan(s), and preliminary and final reports. Respondent shall submit one copy of all other documents to be submitted pursuant to this Consent Order. All such submittals shall be hand delivered or sent by certified mail, return receipt requested, or by overnight delivery/courier to the EPA Project Coordinator.

IX. PROGRESS REPORTS/PROPOSED CONTRACTOR/ADDITIONAL WORK

A. Progress Reports

1. Beginning with the next quarter of the calendar year following the effective date of this Consent Order, Respondent shall provide EPA with quarterly progress reports on the tenth (10th) day of April, July, October, and January. The quarterly progress reports shall include, at a minimum, the following:

a. A description of the actions completed during the reporting period towards implementation of this Consent Order;

b. A description of all actions scheduled for completion during the reporting period which were not completed along with a statement indicating why such actions were not completed and an anticipated completion date;

c. Copies of sampling and test results received by Respondent during the reporting period; and,

d. A description of the actions which are scheduled for completion during the following reporting period.

B. Proposed Contractor

All work performed pursuant to this Consent Order shall be under the direction and supervision of a professional engineer, hydrologist, geologist, or environmental scientist, with expertise in hazardous waste cleanup. Respondent's contractor shall have the technical expertise sufficient to adequately perform all aspects of the work for which it is responsible. Within 14 days of the effective date of this Consent Order, Respondent shall notify the EPA Project Coordinator in writing of the name, title, and qualifications of the consulting firm and drilling firm responsible for work conducted in carrying out the terms of this Consent Order. Respondent shall identify whether any contractor is on the List of Parties Excluded from Federal Procurement or Non-Procurement Programs.

C. Additional Work

1. If EPA determines upon receipt of new information, that certain corrective action or other response measures including investigatory work and engineering evaluations are reasonably necessary to protect human health or the environment, then EPA may require in writing that Respondent perform the additional work and shall specify the basis and reasons for EPA's determination that the additional work is necessary. If required by EPA, Respondent shall submit for EPA approval a work plan for

the additional work. Such work plan shall be submitted within ninety (90) days of receipt of EPA's determination that additional work is necessary, or according to an alternative schedule agreed to by the parties. EPA will review any such plan(s) in accordance with Section VIII, Submittals. Upon approval, by EPA, such work plan(s) shall be incorporated into and become part of this Consent Order. EPA's determination under this paragraph is expressly subject to Dispute Resolution under Article XXII.

2. While undertaking activities pursuant to this Consent Order, should Respondent identify additional work or specify a segment of work to be addressed in a manner other than as provided herein, Respondent may submit a work plan for that work to EPA for approval. EPA will review any such plan(s) in accordance with Section VIII, Submittals, in an expeditious manner.

X. QUALITY ASSURANCE

1. Respondent shall follow EPA guidance for sampling and analysis. Work plans shall contain quality assurance/quality control and chain of custody procedures for all sampling, monitoring, and analytical activities. Any deviations from the approved work plans must be approved by EPA prior to implementation; must be documented, including reasons for the deviations; and must be reported in the applicable report (e.g., RFI Report).

2. The name(s), addresses, and telephone numbers of the analytical laboratories Respondent proposes to use must be specified in the applicable workplan(s).

3. Respondent shall inform the EPA Project Coordinator at least fifteen (15) days in advance which laboratories in addition to its own will be used by Respondent.

4. All work plans required under this Consent Order shall include data quality objectives for each data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use(s).

5. Respondent shall specify before using any laboratory for analysis that the laboratory shall perform such analysis according to the latest approved edition of "Test Methods for Evaluating Solid Waste, (SW-846)," or other methods deemed satisfactory to EPA. If methods other than EPA methods are to be used, Respondent shall specify all such protocols in the applicable work plan (e.g., RFI Work Plan). EPA may reject any data that does not meet the requirements of the approved work plan or EPA analytical methods and may require resampling and additional analysis.

6. Respondent shall specify before using any laboratory to perform analysis under this Consent Order that such laboratory participate in a quality assurance/quality control program equivalent to that which is followed by EPA. Upon request by EPA, Respondent shall have its laboratory perform analyses of samples provided by EPA to demonstrate laboratory performance.

If the audit reveals deficiencies in a laboratory's performance or quality assurance/quality control, resampling and additional analysis may be required.

XI. ON-SITE AND OFF-SITE ACCESS

1. EPA, its contractors, employees, and/or any EPA representatives, upon presentation of proper credentials, are hereby authorized to enter and move about the Facility pursuant to this Consent Order during business hours for the purposes of, inter alia: interviewing Facility personnel and contractors; inspecting records, operating logs, and contracts related to the implementation of this Consent Order; reviewing Respondent's progress in carrying out the terms of this Consent Order; conducting such tests, sampling, or monitoring at existing or proposed sampling points as EPA deems necessary; using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to EPA by Respondent pursuant to this Consent Order. EPA will be accompanied by Respondent's personnel unless such personnel are unavailable. Respondent shall permit such persons to inspect and copy all records, files, photographs, documents, including all sampling and monitoring data, that pertain to work undertaken pursuant to this Consent Order and that are within the possession or under the control of Respondent or its contractors or consultants.

2. To the extent that work being performed pursuant to this Consent Order must be done beyond the Facility property boundary, Respondent shall use its best efforts to obtain access

agreements necessary to complete work required by this Consent Order from the present owner(s) of such property within thirty (30) days of approval of any work plan for which access is required or date that need for access is known to Respondent. Respondent shall ensure that EPA's Project Coordinator has a copy of any written access agreement(s). Best efforts as used in this paragraph shall include, at a minimum, a certified letter from Respondent to the present owner(s) of such property requesting access agreement(s) to permit Respondent, EPA, and its authorized representatives to access such property, and the payment of reasonable sums of money in consideration of granting access. Any such access agreement shall provide for oversight by EPA and its representatives of Respondent's activities under this Consent Order. In the event that agreements for access are not obtained within thirty (30) days of approval of any work plan for which access is required, or of the date that the need for access became known to Respondent, Respondent shall notify EPA in writing within fourteen (14) days thereafter of both the efforts undertaken to obtain access and the failure to obtain such agreements. EPA may, at its discretion, assist Respondent in obtaining access. In the event EPA obtains access, Respondent shall undertake the work identified in the EPA-approved Work Plan on such property.

3. Nothing in this section limits or otherwise affects EPA's right of access and entry pursuant to applicable law, including RCRA and CERCLA.

XII. SAMPLING AND DATA/DOCUMENT AVAILABILITY

1. Within ten (10) business days of receipt of a request by EPA, Respondent shall make available to EPA the results of all sampling, tests and/or other data generated by or on behalf of Respondent in accordance with the requirements of this Consent Order.

2. Respondent shall notify EPA in writing at least fourteen (14) days before engaging in any field activities, such as well drilling, installation of equipment, or sampling. If Respondent believes it must commence emergency field activities without delay, Respondent may seek emergency telephone authorization from the EPA Project Coordinator or, if the EPA Project Coordinator is unavailable, his or her Section Chief, to commence such activities immediately. At the request of EPA, Respondent shall provide or allow EPA or its authorized representative to take split or duplicate samples of all samples collected by Respondent pursuant to this Consent Order. Similarly, at the request of Respondent, EPA will allow Respondent or its authorized representative(s) to take split or duplicate samples of all samples collected by EPA under this Consent Order.

3. Notwithstanding any other provisions of this Consent Order, the United States retains all of its information gathering and inspection authorities and rights, including the right to bring enforcement actions related thereto, under RCRA, CERCLA, and any other applicable statutes or regulations.

4. Respondent may assert a business confidentiality claim covering all or part of any information submitted to EPA pursuant to this Consent Order. Any claim of confidentiality shall be adequately substantiated by Respondent when such claim is made. Information determined to be confidential by EPA will be disclosed only to the extent permitted by 40 C.F.R. Part 2. If no such confidentiality claim accompanies the information when it is submitted to EPA, the information may be made available to the public by EPA without further notice to Respondent. In no event shall physical or analytical environmental sampling data be deemed confidential, and Respondent agrees not to assert a confidentiality claim regarding same.

XIII. RECORD PRESERVATION

1. Respondent shall retain, during the pendency of this Consent Order and the pendency of any CMI Order entered subsequent to this Consent Order, and for a minimum of three (3) years after their termination, all data, records, and documents now in its possession or control or which come into its possession which relate in any way to this Consent Order. Respondent shall notify EPA in writing ninety (90) days prior to the destruction of any such records, and shall provide EPA with the opportunity to take possession of any such records. Such written notification shall reference the effective date, caption, and docket number of this Consent Order and shall be addressed to:

Director
Waste Management Division
US EPA, Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

2. Respondent further agrees that within thirty (30) days of retaining or employing any agent, consultant, or contractor for the purpose of carrying out the terms of this Consent Order, Respondent will enter into an agreement with any such agents, consultants, or contractors whereby such agents, consultants, and/or contractors will be required to provide Respondent a copy of all documents produced pursuant to this Consent Order.

3. All documents pertaining to this Consent Order shall be stored by the Respondent in a centralized location at Respondent's offices in Newton, Iowa to afford ease of access by EPA or its representatives.

XIV. NOTIFICATION AND DOCUMENT CERTIFICATION

Unless otherwise specified, all reports, correspondence, approvals, disapprovals, notices, or other submittals relating to or required under this Consent Order shall be in writing and shall be sent to:

1. All documents to be submitted to the EPA should be sent to:

   EPA Project Coordinator
   Don Lininger, US EPA,
   Region VII, 726
   Minnesota Ave, Kansas
   City, Kansas 66101

2. Document to be submitted to the Respondent should be sent to:

   Steve Roth
   Manager, Process
   Engineering, Maytag
   Corporation
   One Dependability
   Square
   Newton, Iowa 50208

XV. PROJECT COORDINATOR

1. The Project Coordinator designated in Section XIV above shall be responsible for overseeing the implementation of this Consent Order and shall serve as each party's designated representative. To the extent practicable, all communications between Respondent and EPA, and all records, documents, reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Consent Order shall be coordinated through the Project Coordinators. This provision does not apply to legal representatives.

2. Each party shall provide written notice to the other party prior to changing its Project Coordinator.

3. The absence of the EPA Project Coordinator from the Facility shall not be cause for the stoppage of work.

XVI. RESERVATION OF RIGHTS

1. Except as expressly provided herein, the parties reserve all of their statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, including without limitation the assessment of penalties under §3008(h)(2) of RCRA, 42 U.S.C. §6928(h)(2). Except as expressly provided herein, this Consent Order shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, and/or authorities, civil or criminal, which the parties have under RCRA, CERCLA, or any other statutory, regulatory, or common law authority.

2. EPA hereby reserves any right it may have to perform any work required to be performed hereunder by Respondent, including, but not limited to, site characterization, feasibility studies, and response/corrective actions as it deems necessary to protect human health or the environment and EPA may exercise any authority it may have under CERCLA to undertake removal actions or remedial actions at any time. Notwithstanding Respondent's compliance with the terms of this Consent Order, EPA reserves any right it may have to seek reimbursement from Respondent for all costs incurred by the United States, and Respondent is not released from liability for such costs.

3. If EPA determines that activities in compliance or noncompliance with this Consent Order have caused or may cause a release of hazardous waste or hazardous constituent(s), or a threat to human health and/or the environment, or that Respondent is not capable of undertaking any of the work ordered, EPA reserves its rights to order Respondent to stop further implementation of this Consent Order for such period of time as EPA determines may be needed to abate any such release or threat and/or to undertake any action which EPA determines is necessary to abate such release or threat.

4. Compliance by Respondent with the terms of this Consent Order shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state or federal laws and regulations. This Consent Order is not intended to be nor shall it be construed to be a permit. This Consent Order does

not relieve Respondent of any obligation to obtain and comply with any local, state or federal permits.

5. The parties acknowledge and agree that EPA's approval of any work plan or report does not constitute a warranty or representation that such work plan or report will achieve the required cleanup or performance standards.

6. Notwithstanding any other provision of this Consent Order, no action or decision by EPA pursuant to this Consent Order, including without limitation, decisions of the Regional Administrator, the Director of the Waste Management Division, or any authorized representative of EPA, shall constitute final agency action giving rise to any right of judicial review prior to EPA's initiation of a judicial action to enforce this Consent Order, including an action for penalties or an action to compel Respondent's compliance with the terms and conditions of this Consent Order.

XVII. OTHER CLAIMS

Nothing in this Consent Order shall constitute or be construed as a release by any party bound by this Consent Order, whether or not such party is a signatory to this Consent Order, from any claim, cause of action or demand, in law or equity, against any other person, firm, partnership, or corporation for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous waste constituents,

hazardous substances, hazardous wastes, pollutants, or contaminants found at, taken to, or taken from the Facility.

XVIII. OTHER APPLICABLE LAWS

All actions required to be taken by Respondent pursuant to this Consent Order shall be undertaken in accordance with all applicable local, state and federal laws and regulations. Respondent shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

XIX. SUBSEQUENT MODIFICATION

1. This Consent Order may be amended only by mutual agreement of EPA and Respondent. Such amendments shall be in writing, shall be signed by both parties, shall have as its effective date those dates specified therein and shall be incorporated into this Consent Order.

2. No informal oral advice, guidance, suggestions, or comments by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall be construed as relieving Respondent of its obligation to obtain, or EPA of its obligation to give, formal written approval, if and when required by this Consent Order.

XX. SEVERABILITY

If any provision or authority of this Consent Order or the application of this Consent Order to any party or circumstances is held by any judicial or administrative authority to be invalid, the application of such provisions to other parties or

circumstances and the remainder of the Consent Order shall remain in full force and effect and shall not be affected thereby unless directly dependent on the performance of the invalid provision.

XXI. FINANCIAL RESPONSIBILITY

While this Consent Order is in effect, Respondent shall submit to EPA its Annual Report on a yearly basis, within thirty (30) days of the issuance of such report. Respondent agrees to submit to EPA any additional publicly available financial information which EPA requests. All such information shall be submitted to EPA within thirty (30) days of Respondent's receipt of the EPA written request.

XXII. DISPUTE RESOLUTION

1. The parties shall use their best efforts to informally and in good faith resolve all disputes or differences of opinion. Except where expressly provided, the parties agree that the procedures contained in this section are the sole procedures for resolving disputes arising under this Consent Order.

2. If Respondent disagrees, in whole or in part, with any decision by EPA pursuant to this Consent Order, Respondent's Project Coordinator shall notify the EPA Project Coordinator of the dispute within ten (10) days of notification of such decision. The Project Coordinators shall attempt to resolve the dispute informally.

3. If the Project Coordinators have not resolved the dispute informally within twenty (20) days of Respondent's notice to EPA, Respondent shall have at that time the option to pursue

the matter formally by placing its objections in writing. Respondent's written objections must be sent to the EPA Project Coordinator within five (5) days after the period for informal discussion has ended, and must set forth the specific points of the dispute, the position Respondent claims should be adopted as consistent with the requirements of this Consent Order, the basis for Respondent's position, and any matters which it considers necessary for EPA's determination. If Respondent fails to follow any of the requirements contained in this paragraph then it shall have waived its right to further consideration of the disputed issue. EPA and Respondent shall then have an additional twenty (20) days from EPA's receipt of Respondent's objections to attempt in good faith to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing, signed by representatives of each party and shall become a part of this Consent Order. Any extension of time shall be accomplished through a written amendment to this Consent Order pursuant to Section XIX, Subsequent Modification.

4. If the parties are unable to reach an agreement within the aforesaid twenty (20) day period, the matter shall be referred to the Branch Chief, RCRA Branch, EPA Region VII. The Branch Chief shall then decide the matter and provide a written statement of his or her decision to Respondent. Such decision shall become an enforceable part of this Consent Order.

5. The questions of whether and in what amounts Respondent shall be liable for stipulated penalties which accrued during or

on account of the dispute resolution process shall be resolved by the Branch Chief in his or her decision of the dispute. If the Branch Chief determines that Respondent was correct in its position, Respondent will not be liable for stipulated penalties.

6. No action or decision by EPA, including without limitation, decisions of the Branch Chief, or his or her designates, pursuant to this Consent Order, shall constitute final agency action giving rise to any rights to judicial review prior to EPA's initiation of judicial action to compel Respondent's compliance with the requirements of this Consent Order.

7. Except as provided in Section XXIV, Stipulated Penalties, the existence of a dispute as defined in this section and EPA's consideration of matters placed into dispute shall not excuse, toll, or suspend any compliance obligation or deadline required pursuant to this Consent Order during the pendency of the dispute resolution process.

XXIII. FORCE MAJEURE

1. Respondent shall perform the requirements of this Consent Order within the time periods set forth or approved herein, except to the extent that performance is prevented or delayed by events which constitute a force majeure. For the purposes of this Consent Order, a force majeure is defined as an event arising from causes beyond the reasonable control of Respondent which could not be overcome by due diligence and which delays performance of any obligation required by this Consent

Order. Respondent shall have the burden of proving a force majeure. Such events shall not include increased costs of performance, changed economic circumstances, normal precipitation events, changed circumstances arising out of the sale, lease or other transfer of Respondent's interest in any or all portions of the facility, or failure to obtain federal, state, or local permits unless Respondent has sought such permits in a timely manner.

2. Respondent shall notify EPA in writing within ten (10) business days after it becomes aware of events which Respondent knows, or has reason to believe may constitute a force majeure. Such notice shall estimate the anticipated length of delay, including necessary demobilization and remobilization, its cause, measures taken or to be taken to minimize the delay and an estimated timetable for implementation of these measures. Respondent's failure to comply with the notice provision of this Section shall constitute a waiver of Respondent's right to assert a force majeure.

3. If EPA determines that the delay or anticipated delay is attributable to a force majeure event, the time for performance of such obligation under this Consent Order that is affected by the force majeure event will be extended by EPA for such time as EPA determines is necessary to complete such obligation. An extension of the time for performance of such obligation affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation,

unless Respondent can demonstrate that more than one obligation was affected by the force majeure event. If EPA determines that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Respondent in writing of the length of the extension, if any, for performance of such obligations affected by the force majeure event.

4. If EPA determines that the delay or anticipated delay is not attributable to a force majeure event, Respondent may elect to invoke the dispute resolution provision, and shall follow the time frames set forth in Section XXII, Dispute Resolution. In any such proceeding, Respondent shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of this Section. If Respondent satisfies this burden, the time for performance of such obligation will be extended by EPA for such time as is necessary to complete such obligation.

XXIV. STIPULATED PENALTIES

1. Unless there has been a written modification of a compliance date by EPA or a delay excusable pursuant to Section XXIII, Force Majeure, of this Consent Order, if Respondent fails to comply with any requirement of this Consent Order in a timely

and satisfactory manner, Respondent shall pay stipulated penalties as set forth below.

a. For failure to submit progress reports as required in this Consent Order:

(1) For days 1-14; $250 per day;
(2) For days 15-30; $500 per day; and
(3) For days 31 and thereafter; $1500 per day.

b. For failure to submit:

(1) Any Interim Measures Work Plan required under Section VII, Work to be Performed, Paragraph A, Interim Measures;
(2) the RFI Work Plan;
(3) the RFI Report;
(4) the CMS Work Plan; or
(5) the CMS Report.

in accordance with the schedules set forth in this Consent Order:

(a) For days 1-14; $300 per day;
(b) For days 15-30; $600 per day; and
(c) For days 31 and thereafter; $1500 per day.

2. All penalties shall begin to accrue on the first business day after complete performance is due or a violation occurs, and shall continue to accrue through the final day of correction of the noncompliance. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Order.

3. All penalties owed to EPA pursuant to this Section shall be due within fifteen (15) days of Respondent's receipt of a written notification of the assessment thereof. Such notification will describe the noncompliance and will indicate the amount of the penalties due. Interest shall begin to accrue

on the unpaid balance at the end of the fifteen (15) day payment period.

4. All penalties shall be paid by certified or cashier's check made payable to "Treasurer of the United States" and shall be remitted to the Regional Hearing Clerk, EPA Region VII, Mellon Bank, P.O. Box 360748M, Pittsburgh, Pennsylvania 15251. All payments shall reference the name of the facility, Respondent's name and the EPA docket number of this Consent Order. A copy of the transmittal of payment shall be sent simultaneously to the EPA Project Coordinator.

5. Any dispute regarding the assessment of stipulated penalties shall be subject to Section XXII, Dispute Resolution, of this Consent Order.

XXV. INDEMNIFICATION OF THE UNITED STATES

Respondent agrees to indemnify and save and hold harmless the United States Government, its agencies, departments, agents and employees from any and all claims or causes of action arising from or on account of any acts or omissions of Respondent or its employees, officers, directors, agents, independent contractors, receivers, trustees and assigns in carrying out activities required by this Consent Order. Respondents shall be under no duty, however, to indemnify the EPA for claims or causes of action arising from or on account of negligent, willful, or intentional acts or omissions of the EPA, its officers, agents, employees or any other person acting on its behalf. Nothing herein is intended to or shall be construed as extending the

liability of the EPA beyond that provided for under federal law.

XXVI. TERMINATION AND SATISFACTION

1. This Consent Order shall terminate when the Respondent demonstrates in writing and certifies to the satisfaction of EPA that all activities required under this Consent Order, including any additional work or payment of any stipulated penalties demanded by EPA, have been performed and EPA has approved the certification. This notice shall not, however, terminate Respondent's obligation to comply with Sections XIII and XXIV of this Consent Order.

2. The certification shall be signed by a responsible official of Respondent who shall make the following attestation: "To the best of my belief and knowledge, I certify that the information contained in or accompanying this certification is true, accurate and complete." For purposes of this Consent Order, a responsible official is a corporate officer of Respondent who is in charge of a principal business function.

XXVII. NON-SIGNATORIES TO ORDER

Nothing contained in this Consent Order shall be construed as conferring upon or giving rise to any rights to any persons not parties hereto.

XXVIII. EFFECTIVE DATE

1. This Consent Order shall become effective upon Respondent's receipt of a copy of the fully executed original of this Consent Order.

2. Except as specifically provided in this Consent Order, all times for performance and compliance begin to run from the effective date of this Consent Order.

For Maytag Corporation

December 21, 1993
Date

By: Richard J. Haines
Richard J. Haines

Its: President, Maytag & Admiral Products

For the Environmental Protection Agency

12-28-93
Date

Anne W. Rowland
Anne W. Rowland
U.S. Environmental Protection Agency
Region VII

IT IS SO ORDERED.

12-30-93
Date

David A. Wagoner
David A. Wagoner
Director
Waste Management Division
U.S. Environmental Protection Agency
Region VII

Attachments

CERTIFICATE OF SERVICE

I hereby certify that the original and true and correct copy of the foregoing Administrative Order on Consent was hand delivered to the Regional Hearing Clerk, U.S. Environmental Protection Agency, Region VII, 726 Minnesota Avenue, Kansas City, Kansas 66101; and true and correct copies were sent by the means noted to the following addressees on this 6th day of January, 1994.

Venessa Cobbs
Regional Hearing Clerk

ADDRESSEES:

By Certified Mail (Return Receipt Requested)

Roger Scholten
Associate Counsel
Maytag Company
One Dependability Square
Newton, Iowa 50208

Jane McAllister, Esq.
Ahler, Cooney, Dorweiler, Haynie, Smith & Allbee, P.C.
100 Court Avenue, Suite 600
Des Moines, Iowa 50209-2231

ATTACHMENT I
SCOPE OF WORK FOR A RCRA FACILITY INVESTIGATION (RFI)
MAYTAG PLANT #2
NEWTON, IOWA

The RFI Work Plan shall include:

A. Project Management Plan

The Respondent shall prepare a Project Management Plan which will include a discussion of the technical approach, schedules, budget, and personnel. The Project Management Plan will also include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This plan shall also document the overall management approach to the RFI, and a detailed schedule for conducting the RFI.

B. Data Collection Quality Assurance Plan

The Respondent shall prepare a plan to document all monitoring procedures: sampling, field measurements and single analysis performed during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information and data and resulting decisions are technically sound, statistically valid, and properly documented.

1. Data Collection Strategy

   The strategy section of the Data Collection Quality Assurance Plan shall include but not be limited to the following:

   a. Description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses;

   b. Description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data;

   c. Description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process

condition or an environmental condition. Examples of factors which shall be considered and discussed include:

i) Environmental conditions at the time of sampling;

ii) Number of sampling points;

iii) Representativeness of selected media; and

iv) Representativeness of selected analytical parameters.

d. Description of the measures to be taken to assure that the following data sets generated after the effective date of this Order can be compared to each other:

i) RFI data generated by the Respondent over some time period;

ii) RFI data generated by an outside laboratory or consultant versus data generated by the Respondent;

iii) Data generated by multiple consultants or laboratories; and

iv) Data generated by an outside consultant or laboratory over some time period.

e. Details relating to the schedule and information to be provided in quality assurance reports. The reports should include but not be limited to:

i) Periodic assessment of measurement data accuracy, precision, and completeness;

ii) Results of performance audits

iii) Results of system audits;

iv) Significant quality assurance problems and recommended solutions; and

v) Resolutions of previously stated problems.

2. Sampling

The sampling section of the Data Collection Quality Assurance Plan shall discuss:

a. Selecting appropriate sampling locations, depths, etc.;

b. Providing a statistically sufficient number of sampling sites, such that a statistically valid comparison can be made between samples;

c. Measuring all necessary ancillary data;

d. Determining conditions under which sampling should be conducted;

e. Determining which media are to be sampled (e.g. groundwater, air, soil, sediment, etc.);

f. Determining which parameters are to be measured and where;

g. Selecting the frequency of sampling and length of sampling period;

h. Selecting the types of sample (e.g., composites vs. grabs) and number of samples to be collected;

i. Measures to be taken to prevent contamination of the sampling equipment and cross-contamination between sampling points;

j. Documenting field sampling operations and procedures, including:

   i) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, and adsorbing reagents);

   ii) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;

   iii) Documentation of specific sample preservation methods;

   iv) Calibration of field devices;

   v) Collection of replicate samples

   vi) Submission of field-biased blanks, where appropriate;

vii) Potential interferences present at the facility;

viii) Construction materials and techniques, associated with monitoring wells and piezometers;

ix) Field equipment listing and sample containers;

x) Sampling order; and

xi) Decontamination procedures.

k. Selecting appropriate sample containers;

l. Sample preservation; and

m. Chain-of-custody, including:
i) Standardized field tracking and reporting forms to establish sample custody in the field prior to and during shipment; and

ii) Pre-prepared containing information necessary for effective sample tracking.

3. Field Measurements

The Field Measurements section of the Data Collection Quality Assurance Plan shall discuss:

a. Selecting appropriate field measurement locations, depths, etc.;

b. Providing a statistically sufficient number of field measurements;

c. Measuring all necessary ancillary data;

d. Determining conditions under which field measurements should be conducted;

e. Determining which media are to be addressed by appropriate field measurements (e.g., groundwater, soil, sediment, etc.);

f. Determining which parameters are to be measured and where;

g. Selecting the frequency of field measurements and length of field measurement period; and

h. Documenting field measurement operations and procedures, including:

i) Procedures and forms for recording raw data and the exact location, time, and facility-specific considerations associated with the data acquisition

ii) Calibration of field devices;

iii) Collection of replicate measurements;

iv) Submission of field-biased blanks, where appropriate;

v) Potential interferences present at the facility;

vi) Construction materials and techniques associated with monitoring wells and piezometers used to collect field data;

vii) Field equipment listing;

viii) Order in which field measurements were made; and

ix) Decontamination procedures.

4. Sample Analysis

The Sample Analysis section of the Data Collection Quality Assurance Plan shall specify the following:

a. Chain-of-custody procedures, including:

i) Definition of a responsible party to act as sample custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipments, and verify the data entered onto the sample custody records;

ii) Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and

iii) Specification of laboratory sample custody procedures for sample handling, storage, and dispersion for analysis.

b. Sample storage procedures and storage times;

c. Sample preparation methods;

d. Analytical procedures, including:

i) Scope and application of the procedure;

ii) Sample matrix;

iii) Potential interferences;

iv) Precision and accuracy of the methodology; and

v) Method detection limits.

e. Calibration procedures and frequency;

f. Data reduction, validation and reporting;

g. Internal quality control checks, laboratory performance and system audits and frequency, including:

i) Method blank(s);

ii) Laboratory control sample(s);

iii) Calibration check sample(s);

iv) Replicate sample(s);

v) Matrix-spiked sample(s);

vi) "Blind" quality control sample(s);

vii) Control charts;

viii) Surrogate samples;

ix) Zero and span gases;

x) Reagent quality control checks;

h. Preventative maintenance procedures and schedules;

i. Corrective action (for laboratory problems); and

j. Sample turnaround time

C. Data Management Plan

The Respondent shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record

   The data record shall include the following:

   a. Unique sample or field measurement code;

   b. Sampling or field measurement location and sample or measurement type;

   c. Sampling or field measurement raw data;

   d. Laboratory analysis ID number;

   e. Property or component measured; and

   f. Results of analysis (e.g., concentration).

2. Tabular Displays

   The following data shall be presented in tabular displays:

   a. Unsorted (raw) data;

   b. Results for each medium, or for each constituent monitored;

   c. Data reduction for statistical analysis;

   d. Sorting of data by potential stratification factors (e.g., location, soil layer,topography); and

   e. Summary data.

3. Graphical Displays

   The following data shall be presented in geographical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots,

cross-sectional plots or transects, three dimensional graphs, etc.);

a. Display sampling location and sampling grids;

b. Indicate boundaries of sampling area and areas where more data are required;

c. Display levels of contamination at each sampling location;

d. Display geographical extent of contamination;

e. Display contamination levels, averages, and maxima;

f. Illustrate changes in concentration in relation to distance form the source, time, depth or other parameters; and

g. Indicate features affecting intramedia transport and show potential receptors.

D. **Health and Safety Plan**

The Respondent shall prepare a Health and Safety Plan. The Health and Safety Plan is subject to review and comment, but not approval, by EPA.

1. Major elements of the Health and Safety Plan shall include:

a. Facility description including availability of resources such as roads, water supply, electricity and telephone service;

b. Description of the known hazards and evaluation of the risks associated with the incident and with each activity conducted;

c. A listing of key personnel and alternates responsible for site safety, response operations, and for protection of public health;

d. Delineation of work areas;

e. Description of levels of protection to be worn by personnel in work areas;

f. Establishment of procedures to control site access;

g. Description of decontamination procedure for personnel and equipment;

h. Establishment of site emergency procedures;

i. Emergency medical care for injuries and toxicological problems;

j. Description of requirements for an environmental surveillance program;

k. Routine and special training required for responders; and

l. Establishment of procedures for protecting workers from weather-related problems.

2. The facility Health and Safety Plan shall be consistent with:

a. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);

b. EPA Order 1440.1 - Respiratory Protection;

c. EPA Order 1440.3 - Health and Safety Requirements for Employees Engaged in Field Activities;

d. Facility Contingency Plan;

e. EPA Standard Operating Safety Guide (1984);

f. OSHA regulations particularly in 29 CFR 1910 and 1926;

g. State and local regulations; and

h. Other EPA guidance as provided.

E. Community Relations Plan

The Respondent shall prepare a plan for the dissemination of information to the public regarding investigation activities and results.

ATTACHMENT II
SCOPE OF WORK FOR A CORRECTIVE MEASURES STUDY (CMS)
MAYTAG PLANT #2
NEWTON, IOWA

CMS Workplan - Identification and Development of the Corrective Measure Alternative or Alternatives

Based on the results of the RCRA Facility Investigation the Respondent shall identify, screen and develop the alternative or alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

A. Description of Current Situation

The Respondent shall submit an update to the information describing the current conditions at the facility and the known nature and extent of contamination as documented by the RFI Report. The Respondent shall provide to EPA an update to information regarding previous response activities and any interim measures which have or are being implemented at the facility. The Respondent shall also make a facility-specific statement of the purpose for the response, based on the results of the RFI. The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

B. Establishment of Corrective Action Objectives

The Respondent, in conjunction with the EPA, shall establish site specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA Guidance, and the requirements of any applicable Federal statutes. At a minimum, all corrective actions concerning groundwater releases from regulated units must be consistent with, and as stringent as, those required under 40 CFR 264.100.

C. Screening of Corrective Measure Technologies

The Respondent shall review the results of the RFI report as approved by EPA and identify technologies which are applicable at the facility. The Respondent shall screen technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technology limitations. Site, waste, and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

1. Site Characteristics

   Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration.

2. Waste Characteristics

   Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics should be eliminated from consideration.

3. Technology Limitations

   During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

D. Identification of the Corrective Measure Alternative or Alternatives

The Respondent shall develop the corrective measure alternative or alternatives based on the corrective action objectives. The Respondent shall rely on engineering practice to determine which identified technologies appear most suitable for the site. Technologies can be combined to form the overall corrective action alternative or alternatives. The alternative or alternatives developed should represent a workable number of option(s) that each appear to adequately address all site problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Respondent shall document the reasons for excluding technologies.

Evaluation of the Corrective Measure Alternative or Alternatives

The Respondent shall describe each corrective measure alternative that passes through the Initial Screening and evaluate each corrective measure alternative and its components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Respondent shall also develop cost estimates for each corrective measure.

A. Technical/Environmental/Human Health/Institutional

The Respondent shall provide a description of each corrective measure alternative which includes but is not limited to the following: preliminary process flow sheets, preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Respondent shall evaluate each alternative in the following areas:

1. Technical

The Respondent shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.

a. The Respondent shall evaluate performance based on the effectiveness and useful life of the corrective measure:

i) Effectiveness shall be evaluated in terms of ability to perform intended functions, such as

containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance criteria. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies;
and,

ii) Useful life is defined as the length of time the level of effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology, as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

b. The Respondent shall provide information on the reliability of each corrective measure including their operation and maintenance requirements and their demonstrated reliability:

i) Operations and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straightforward operation and maintenance. The availability of labor and materials

to meet these requirements shall also be considered; and

ii) Demonstrated and expected reliability is a way of measuring the risk and effect of failure. The Respondent should evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes at the site.

c. The Respondent shall describe the implementability of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:

i) Constructability is determined by the conditions both internal and external to the facility conditions and include such items as location of underground utilities, depth to the water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location vs. congested urban area). The Respondent shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and

ii) Time has two components that shall be addressed: the time it takes to implement a corrective measure and the time it takes to actually see beneficial results. Beneficial results are defined as the reduction of

contaminants to some acceptable, pre-established level.

d. The Respondent shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those workers during implementation. Factors to consider are fire, explosion, and exposure to hazardous substances.

2. Environmental

The Respondent shall prepare a brief environmental assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of: the short- and long-term beneficial and adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.

3. Human Health

The Respondent shall assess each alternative in terms of the extent of which it mitigates short- and long-term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measure. The assessment will describe the levels and characterizations of contaminants on-site, potential exposure routes, and potentially affected populations. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual levels of each alternative with existing criteria, standards, or guidelines acceptable to EPA.

4. Institutional

The Respondent shall assess relevant institutional needs for each alternative.

Specifically, the effects of Federal, state and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative.

5. Other

The Respondent may evaluate such other factors as may be relevant in the selection of the corrective measure(s), if any, for the facility.

B. Cost Estimate

The Respondent shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital and operation and maintenance costs.

1. Capital costs consist of direct (construction) and indirect (nonconstruction and overhead) costs.

   a. Direct and capital costs include:

      i) Construction costs: costs of materials, labor, and equipment required to install the corrective measure.

      ii) Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the corrective action; these materials remain until the corrective action is complete.

      iii) Land and site development costs: Expenses associated with the purchase of land and development of existing property; and

      iv) Buildings and services costs: Costs of process and nonprocess buildings, utility connections, purchased services, and disposal costs.

   b. Indirect capital costs include:

i) Engineering expenses: Costs of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;

ii) Legal fees and license or permit costs: Administrative and technical costs necessary to obtain licenses and permits for installation and operation;

iii) Startup and shakedown costs: Costs incurred during corrective measure startup; and

iv) Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate facility characterization.

2. Operation and Maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Respondent shall consider the following operation and maintenance cost components:

a. Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;

b. Maintenance materials and labor costs; Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;

c. Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water, sewer service, and fuel;

d. Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;

e. Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues, generated during operations;

f. Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;

g. Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accidental insurance; real estate taxes on purchased land or rights-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;

h. Maintenance reserve and contingency funds: Annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and

i. Other costs: Items that do not fit any of the above categories.

Justification and Recommendation of the Corrective Measure or Measures

The Respondent shall justify and recommend a corrective measure alternative using the criteria set forth above. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Tradeoffs among health risks, environmental effects, and other pertinent factors shall be highlighted. The EPA will select the corrective measure alternative or alternatives to be implemented. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

A. Technical

1. Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;

2. Reliability - corrective measure or measures which do not require frequent or complex operation and maintenance activities and that have proven effective under waste and facility conditions similar to those anticipated will be given preference;

3. Implementability - corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and,

4. Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

B. Human Health

The corrective measure or measures must comply with existing EPA criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

C. Environmental

The corrective measure or measures posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

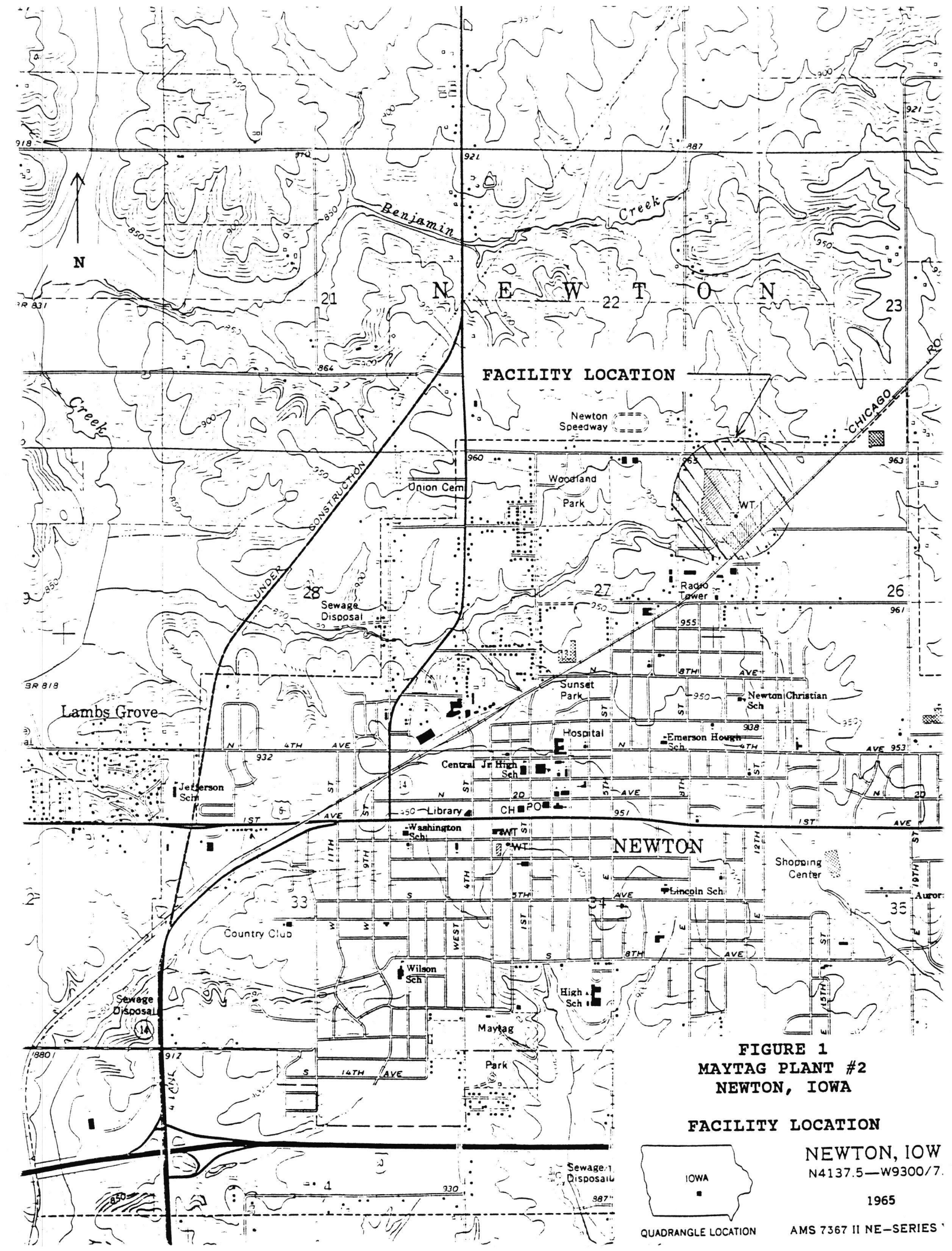

FIGURE 1
MAYTAG PLANT #2
NEWTON, IOWA

FACILITY LOCATION

NEWTON, IOW
N4137.5—W9300/7.

1965

AMS 7367 II NE—SERIES

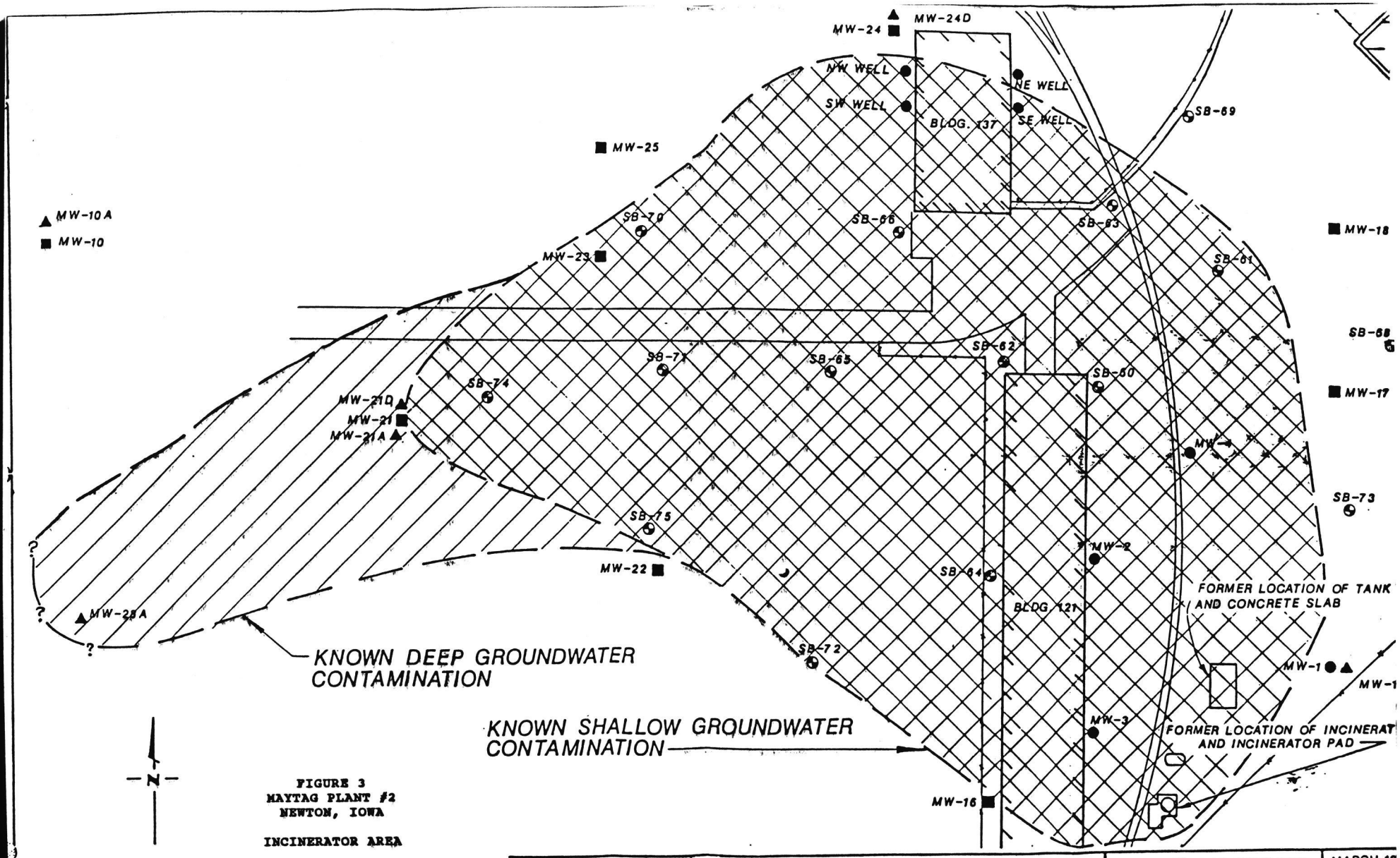

FIGURE 3
MAYTAG PLANT #2
NEWTON, IOWA

INCINERATOR AREA

MAYTAG COMPANY PLANT #2

GROUNDWATER PLUME
(INCINERATOR AREA)

JAMES M. MONTGOMERY
CONSULTING ENGINEERS, INC.
DES MOINES, IOWA

MARCH 19

FIGURE 5

MW-24D
MW-24
NW WELL
NE WELL
SW WELL
SE WELL
BLDG. 137
SB-69
MW-25
MW-10A
MW-10
SB-70
SB-66
SB-63
MW-18
MW-23
SB-61
SB-68
SB-62
SB-71
SB-65
SB-74
SB-60
MW-21D
MW-21
MW-21A
MW-17
MW-4
SB-73
SB-75
MW-2
MW-22
SB-64
FORMER LOCATION OF TANK AND CONCRETE SLAB
BLDG. 121
MW-28A
SB-72
MW-1
MW-3
FORMER LOCATION OF INCINERAT AND INCINERATOR PAD
KNOWN DEEP GROUNDWATER CONTAMINATION
KNOWN SHALLOW GROUNDWATER CONTAMINATION
MW-16
N
0' 50'
APPROXIMATE BOUNDARY

FIGURE 3
MAYTAG PLANT #2
NEWTON, IOWA

INCINERATOR AREA

MAYTAG COMPANY PLANT #2

GROUNDWATER PLUME
(INCINERATOR AREA)

JAMES M. MONTGOMERY
CONSULTING ENGINEERS, INC.
DES MOINES, IOWA

MARCH 19

FIGURE 5

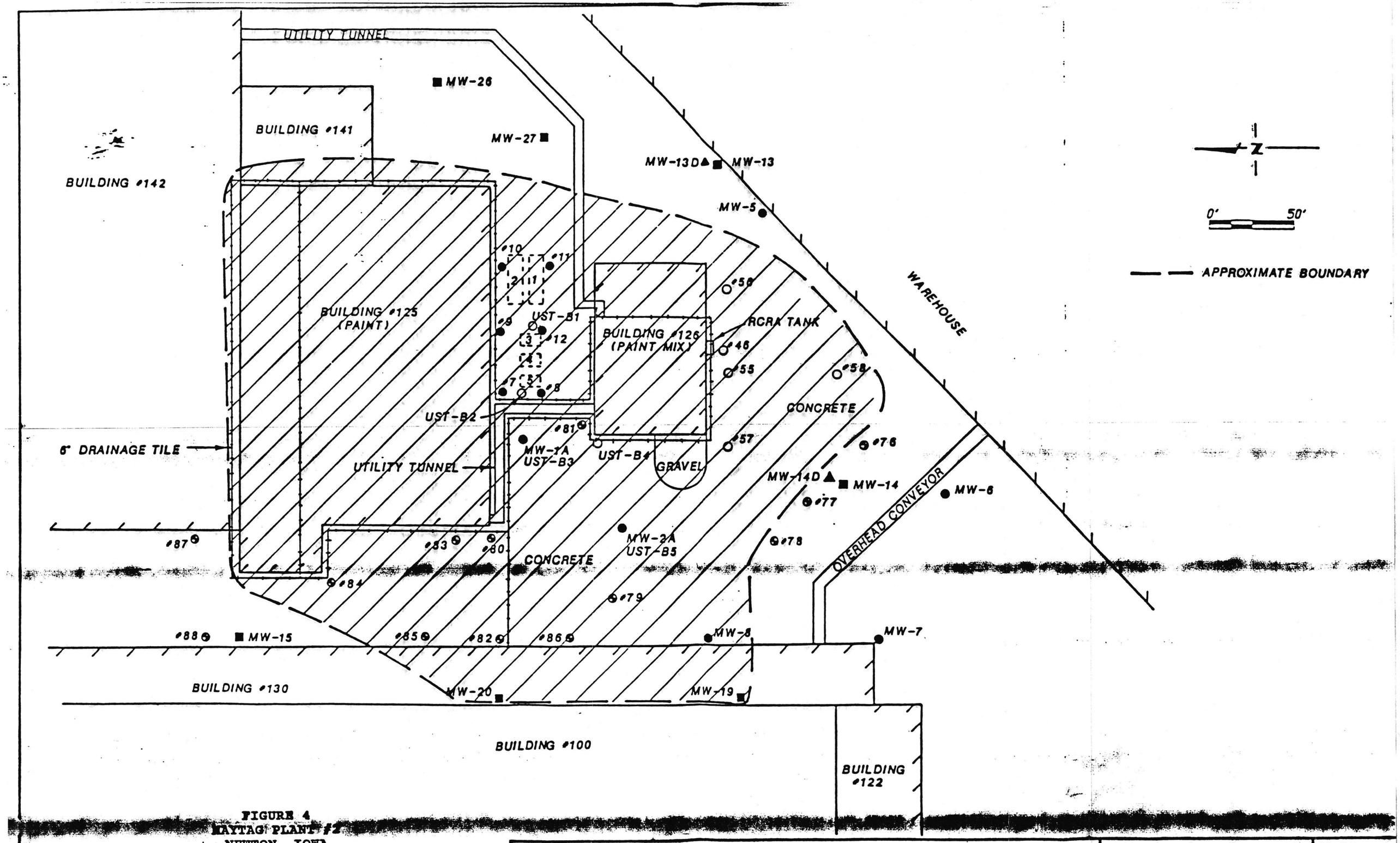

FIGURE 4
MAYTAG PLANT #2
NEWTON, IOWA
UNDERGROUND STORAGE TANK AREA

MAYTAG COMPANY PLANT #2

GROUNDWATER PLUME
(UNDERGROUND TANK AREA)

JAMES M. MONTGOMERY
CONSULTING ENGINEERS, INC.
DES MOINES, IOWA

MARCH 1991

FIGURE 5-2

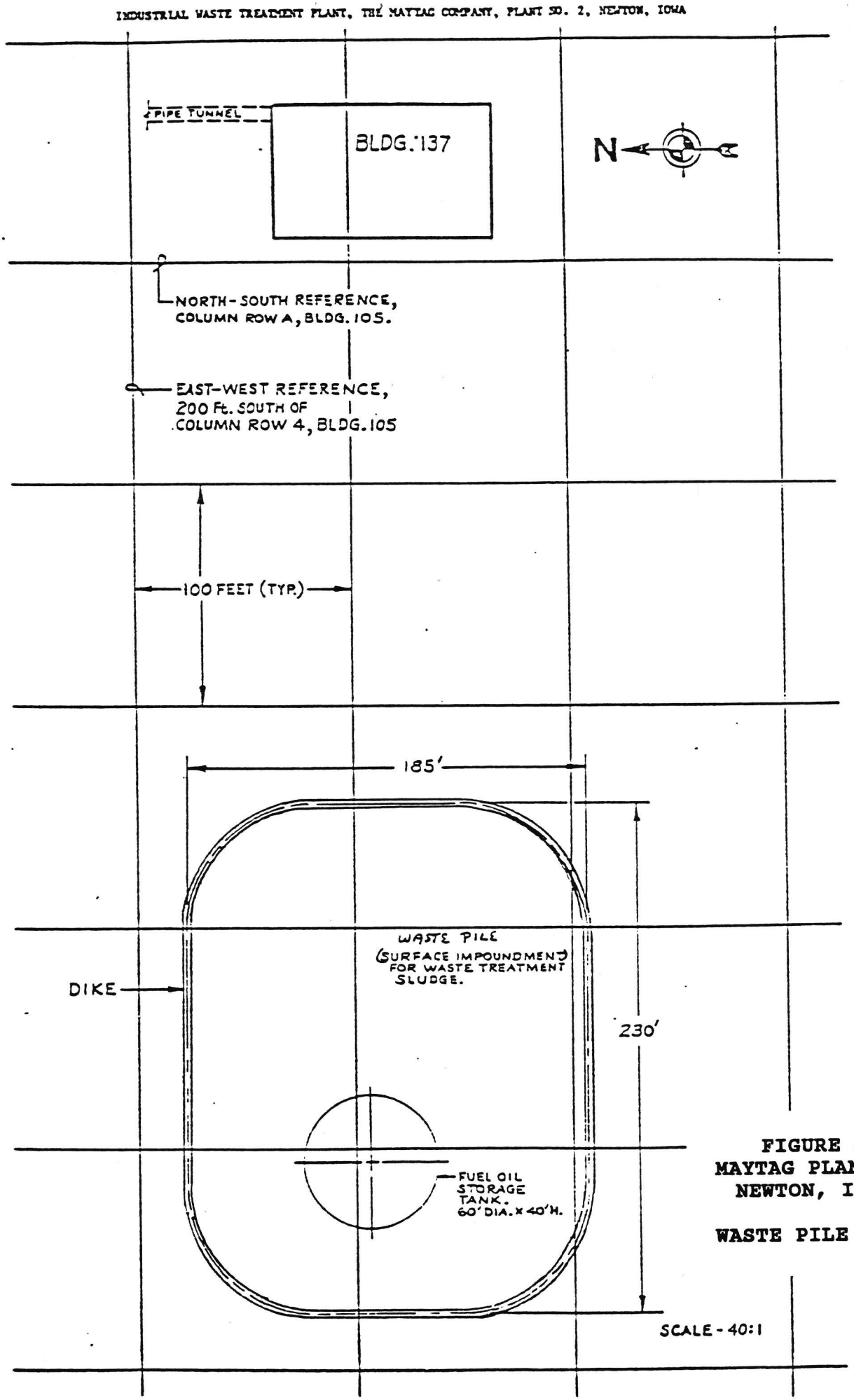

FIGURE 5
MAYTAG PLANT #2
NEWTON, IOWA

WASTE PILE AREA

Maytag - Recommendations For Additional Work To Be Performed.

1. Redevelop wells that yield turbid samples to obtain accurate analytical data for metals.

   * Surge w/ surge block and pump in alternating cycles.

   * Monitor turbidity levels w/ turbidimeter. Continue development until turbidity values stabilize.

2. Install additional monitoring wells to further define horiz./vert. extent of contamination. Need upgradient wells in incinerator area. MW-1 is crossgradient and MW-3 is downgradient. Based on analytical data from May/Oct. '92, need wells in these areas:

   * Deeper wells site-wide to deter. vert. extent.

   * Incinerator Area: need wells downgradient of well clusters MW-21 and MW-28.

   Should consider using rotary methods for future well installations given site conditions (silt and clay).

   * Wells will be easier to develop & turbidity reduced.

   * Less risk of cross contamination.

   Drilling/sampling considerations:

   * Recommend continuously sampling of deepest boreholes to further define site stratigraphy. Need to locate uppermost confining unit so that uppermost aquifer at site is defined.

   * Most wells are completed in clay or silty clay. Future wells should be completed in the coarser materials that were encountered at approx. 30 to 40 ft. depths in existing borings. These more permeable zones are likely to be preferred paths for contaminant migration.

GW Sampling and Analysis:

* The use of sampling devices other than bailers should be considered. Raising and lowering a bailer within the well can cause any sediment that has accumulated in the bottom of the well to become suspended in the water column which results in the collection of turbid samples. The surging action of the bailer can also disturb the borehole adjacent to the screen. This will also increase sample turbidity. Bailers ~~have~~ can also promote the loss of volatile constituents due to agitation. For these reasons, the use of an in-situ sampling device (i.e. bladder pump) is highly recommended.

* Sampling procedures must include the detection/collection of immiscible phases. Organic contaminants that are both lighter and denser than water have been detected in groundwater samples.

* The total well depth must be measured prior to purging to detect possible siltation problems.

* Obtain parameter measurements of temp., pH, and specific conductivity in the field during purging to verify well stabilization prior to sampling.

* VOA samples should be collected first to minimize the loss of volatiles.

* Purge water from contaminated wells must be containerized and disposed of properly.

* All samples must be cooled and preserved immediately after collection.

* The analytical detection limit for cadmium has been 0.02 mg/l. The MCL for cadmium is 0.005 mg/l. The detection limit must be lowered so that it will be detected at or above the MCL.

HAZARDOUS WASTE STORAGE FACILITY

Location of Past and/or Non-Regulated Waste Management Activities

NOTES

- STOP SIGN
- SPEED LIMIT (10 MILES/HOUR)
- CAMERA
- GATE

GATES #1, #2 & #3 ARE OPENED 24 HOURS PER DAY EXCEPT SATURDAY & SUNDAY.

GATES #4 & #5 ARE CLOSED AT ALL TIMES.

GATE #6 IS OPENED FOR WALK THROUGH TRAFFIC ONLY.

ENTIRE PERIMITER OF PROPERTY IS FENCED WITH 8'-0" HIGH FENCE WITH 3 ROWS OF BARBED WIRE ON TOP.

0' 100' 200' 300'

SCALE IN FEET

LATITUDE 41 DEG. 42 MIN. 00 SEC.
LONGITUDE 93 DEG. 03 MIN. 30 SEC.
P-2 ELEVATION : 960 FT. ABOVE MEAN SEA LEVEL
LEGAL DESCRIPTION : RANGE 19 WEST OF THE 5th PRINCIPAL MERIDIAN, TOWNSHIP 80 NORTH, SECTIONS 26 & 27

BENCH MARK REFERENCE ELEVATION JASPER COUNTY COURTHOUSE 200.00'. FACTORY FLOOR REFERENCE ELEVATION 205.8
P-2 ELEVATION : 960 FT. ABOVE MEAN SEA LEVEL
NEWTON CITY GEOGRAPHIC CO-ORDINATES
LATITUDE 41 DEG. 42 MIN. 00 SEC.
LONGITUDE 93 DEG. 03 MIN. 30 SEC.
UNIVERSAL TRANSVERSE MERCATOR CO-ORDINATES
NORTHING 15 TVS - 4,616,000 M
EASTING 15 TVS - 496,000 M
LEGAL DESCRIPTION : RANGE 19 WEST OF THE 5th PRINCIPAL MERIDIAN, TOWNSHIP 80 NORTH, SECTIONS 26 & 27

J				
H				
G				
F				
E	ADD BLDG #157	9-4-87	BJS	
D	REMOVE WATERTOWER	2-4-89	BJS	
C	UPDATED	5-18-88	BR	
B	PLANT NO 2 PROPERTY LOCATION	4-24-84	BJS	
A	UPDATED	3-4-87	BA	
REVISIONS		DATE	BY	APP'D

DO NOT SCALE DRAWINGS			DRAWN	BJBestell	DET / AMT. / MATERIAL / SHT.
PRINT ISSUED	DATE	BY	SCALE	1"=100'-0"	TITLE
FOR CONSTRUCTION			DATE	4-6-82	PLANT No 2 PLOT
FOR ESTIMATING			CHECKED		
FOR REFERENCE			APPR'D		PLANT ENGINEERING DEPT. SHEET NO 2 OF
FOR CHECKING			C C	2200	MAYTAG NEWTON, IOWA DWG. NO. E-6349-A

FIGURE 2
MAYTAG PLANT #2
NEWTON, IOWA

FACILITY LAYOUT

REV.	DATE	DESCRIPTION	APP BY

SCALE AS NOTED	PROJECT MAYTAG PART B APPLICATION
DATE	SHEET TITLE LOCATION OF PAST AND/OR NON-REGULATED WASTE MANAGEMENT ACTIVITIES
TEAM, Inc. 207 East 127th Street Lemont, IL 60439 (312) 257-6060	SHEET ___ OF ___ DRAWING NO.